## MICROARRAY METHODS UTILIZING SEMICONDUCTOR NANOCRYSTALS ABSTRACT OF THE DISCLOSURE

The present invention provides a number of different methods for conducting assays with different types of addressable arrays utilizing semiconductor nanocrystals to enhance detection. The invention includes methods utilizing semiconductor nanocrystals with nucleic acid, protein and tissue arrays, for example. By utilizing various useful aspects of semiconductor nanocrystals, the invention also provides a variety of different options for conducting multiplexed assays. Additionally, detection methods involving counting of individual complexes that include semiconductor nanocrystals are provided which can be utilized to expand the dynamic range of detection.

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